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Some Reflections on Copyright Management Information and Moral Rights

Séverine Dusollier*

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INTRODUCTION

The Information Society that we know—not to mention the one we have been promised—abounds with content from images, software and informational data to sound, music, and films. Whether this content or the underlying digital "objects" are copyrighted or not, their origin, authenticity and reliability is often uncertain due precisely to their abundance. A need for identity, hence identification, has appeared on the Information Highway. This need, already apparent in the use of digital signatures—which aim to certify a co-contracting party's identity or reliability—also extends to other types of digital content like images, audio-visual sequences, music, and texts.

The technologies for identifying and labeling content have been present for several years. Watermarking, identifiers, and fingerprinting are the names given to these technologies, which have multiple functions and modes. Collectively, they are called "rights management information"[1] by the World Intellectual Property Organization (WIPO), the first legislative parent of this new development in copyright.

The WIPO Treaties of 1996 contain provisions prohibiting the alteration or removal of Copyright Management Information (CMI) once affixed to works or copies thereof.[2] Other states have followed: the United States enacted the Digital Millennium Copyright Act of 1998 (DMCA),[3] which inserts into the Copyright Act § 1202 dealing with CMI, and in 2001 the European Union enacted a directive whose one purpose is to implement the WIPO Treaties in the *acquis communautaire*. The European Directive on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society [hereinafter "European Directive"],[4] designed to respond to digital threats and questions, includes the key principles of this new protection to be transposed by the member states in Article 7.

Despite all this legislation, the legal protection of CMI has not received much consideration thus far.[5] It could be inferred from this seeming lack of interest that these provisions are considered to be benign, innocuous copyright additions. It is true that the very principle of protection for the identification of the author and

1. Some countries use the wording "Copyright Management Information," instead of "Rights Management Information" which is used by WIPO to indicate that it involves not only copyright, but also related rights enjoyed by performers and producers. I will hereinafter abbreviate both terms as CMI or RMI respectively.

2. World Intellectual Property Organization Copyright Treaty, Dec. 20, 1996, art. 12, 36 I.L.M. 65, *available at* http://www.wipo.org/treaties/ip/wct/index.html and *available at* http://www.copyright.gov/wipo/treaty1.html [hereinafter WCT].

3. Pub.L No. 105-304, 112 Stat. 2863 (Oct. 28, 1998) (codified as amended at 17 U.S.C. §§ 1201-1205 (2000)).

4. Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society, 2001 O.J. (L 167) 10 [hereinafter European Directive].

5. Nimmer is a notable exception: he has written extensively on the topic. *See* David Nimmer, *Puzzles of the Digital Millennium Copyright Act*, 46 J. COPYRIGHT SOC'Y. 401 (1999); David Nimmer, *Aus Der Neuen Welt*, 93 NW. U. L. REV. 195 (1998); 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 12.04[A] (2001).

work is not new. Examples can be found in moral rights or in some national provisions dealing with art forgery. This Article dismantles this façade of apparent harmlessness by highlighting some flaws, conundrums, hidden features, and departures from traditional copyright rules found in the new legal protection of CMI. I will primarily focus on the recently adopted European Directive, while referring to the DMCA when relevant.[6]

Section I will define the notion of "copyright management information" and explain the technical tools and devices currently used to identify, authenticate and imprint the copyrighted works. Section II will address the legal protection of CMI found in the European Directive.[7] A related issue discussed by some scholars is the relationship between such identification schemes and a moral right of attribution. Some argue that the legal protection achieves a partial recognition of a moral right of authors,[8] a matter of particular importance in the US copyright regime that does not include any formal moral rights.[9] Section III argues that if the CMI protection creates a sort of *power* to attribute the work to its rightful owners, it does so by a peculiar logic, closer to the interests of the producers, publishers and distributors of works than to the *rights* generally recognized as belonging to the artist and to the protection of her personality and reputation. This could lead to a weakening of moral rights as we know it in Europe and a shift to an imperfect substitute.

I. COPYRIGHT MANAGEMENT INFORMATION: DEFINITION AND OBJECTIVES

CMI is usually understood as any piece of information that either helps identify the work or the right holder, or manages rights. One recital of the European

6. The CMI provisions in the European Directive do not differ much from their counterparts in the DMCA. At least, the rationale and key elements of the protection are similar. I will underscore their differences as needed.

7. It is worthwhile to remember that a European Directive does not have direct legal force in member states. It constitutes only some basic provisions that the member states are obliged to incorporate into their laws. Therefore, the provisions appearing in the directive of 2001 as explained below, will not be of direct application in the member states. The latter are only obliged to incorporate into their regulatory framework the principles of the directive when needed. They are free to do so in any way that is not incompatible with the objectives and principles of the adopted directive. As a consequence, the national regulatory frameworks that will emerge from the implementation process might be slightly different than the provisions of article 7 addressed here. Besides, only the fields where harmonization is needed to ensure a smooth functioning of the internal market are open for directives at the European level. This explains why the CMI provisions laid down in the directive do not include any remedies, which are traditionally considered matters for member states' authority. Having said that, given the technicality of the CMI provisions, one could expect that the member states will simply incorporate the exact text of article 7.

8. Jane C. Ginsburg, *Have Moral Rights Come of (Digital) Age in the United States?*, 19 CARDOZO ARTS & ENT. L.J. 9 (2001); Jane C. Ginsburg & Jon A. Baumgarten, *Panel Discussion: Are There Moral Rights in Cyberspace?*, *in* 3 INTERNATIONAL INTELLECTUAL PROPERTY LAW & POLICY 17-1 (Hugh C. Hansen ed., 1998). *See also* COPYRIGHT IN CYBERSPACE, ALAI STUDY DAYS 1996 165-253 (Marcel Dellebeke ed., 1997) (general discussion on the right of authenticity).

9. Save for a partial integrity right granted to visual works by the Visual Arts Rights Act of 1990. Pub. L. No. 101- 650, tit. VI, 104 Stat. 5128 (1990)) (codified in part in 17 U.S.C. §§ 101, 106A, 107, 113, 301, 411, 412, 501, 506 (1994)). But this right is limited to some visual works and does not extend to digital works. *See* Ginsburg, *supra* note 8, at 10-11.

Directive clearly addresses the purpose of CMI:

> Technological development will facilitate the distribution of works, notably on networks, and this will entail the need for rightholders to identify better the work or other subject-matter, the author or any other rightholder, and to provide information about the terms and conditions of use of the work or other subject-matter in order to render easier the management of rights attached to them. Rightholders should be encouraged to use markings indicating, in addition to the information referred to above, inter alia their authorization when putting works or other subject-matter on networks.[10]

Many techniques can play a role in the identification and marking of works. A useful distinction can be drawn between pieces of information identifying the digital object (i.e., the so-called "identifiers") and the techniques that enable the attachment of that information to the content. The principal techniques are encryption or steganography. This distinction has important consequences in regard to the protection granted by the provisions covering CMI.

A. THE IDENTIFIERS FROM THE ANALOG WORLD TO THE DIGITAL ENVIRONMENT

Digital identification systems, in the form of codes inserted into a work or accompanying its circulation, are currently being developed[11] by the International Confederation of Authors and Composers Societies (CISAC) and by associations of editors and producers. The CISAC system, or Common Information System (CIS),[12] aims to identify the distinct constituent parts of copyrightable works (through various codes applied at various stages of the creative process, from creation to fixation and the manufacture of the commercial product), the parties involved (the rightholders, authors, producers, editors, or performers), and the contracts signed between the parties concerning the works. The International Association of Publishers has also developed an identification scheme called the Digital Object Identifier (DOI).[13] The main function of these identification systems is to facilitate the search for rightholders in databases referred to by the digital codes appearing on the work. The CIS identifiers are similar to ISBN numbers,[14] the well-known analog identification system for numbering books. They are composed of a string of numbers, referring to a central database where full information about the work, the publication, the publisher, the author, and the date of publication can be found.

10. European Directive, *supra* note 4, recital 55.

11. See Daniel Gervais, *E-Commerce and Intellectual Property: Lock-It Up or License?*, *in* 6 INTERNATIONAL INTELLECTUAL PROPERTY LAW & POLICY 87 (Hugh C. Hansen ed., 2001), for a detailed overview of identification systems currently developed.

12. *See* http://www.cisac.org (the International Confederation of Authors' Societies (CISAC) website).

13. *See* http://www.doi.org (the DOI association website).

14. Other identifiers exist in the analog world, e.g., the ISSN (reviews and periodicals), the ISMN (music sheets), and the ISRC (audiovisuals and sound recordings).

Given the ease of integrating a single string of numbers into a digital object, these identifiers are a key piece in the electronic distribution of works. One of their main advantages is permanency. Since they refer to a central database, any modification related to the publication, the publisher, or the work can be easily added to the database without modifying the identification attached to the circulating digital products.

Other identification regimes have been put in place by specific associations or used in specific distribution chains. Some technological measures need interoperability with digital signals embedded in the works. Such signals, which have to be properly read by players or recorders, could also be qualified as identifiers or CMI.

B. THE DIGITAL TECHNIQUES AFFIXING IDENTIFIERS TO WORKS

The key difference between digital and analog identifiers lies in the ease of embedding any digital information in digital content. The information can be permanently, invisibly and indelibly attached to a digital copy. A single hyperlink can refer to a huge amount of data about the work and the artist. The possibilities are unlimited and they depend only on the technique used to affix the information to the work.

Watermarking, which "tattoos" the work, currently offers the most security. It differs from the tattoo you can get on your arm or belly because the watermarks are generally invisible and inaudible. This invisible inscription is created through steganography, which is the art and science of communicating in a way which conceals the very existence of communication. The use of invisible ink is an example of steganography from the analog world. In a digital environment, watermarking modifies certain so-called "useless"[15] bits of a picture or a sound. The digital code embedded in this way can be extracted and deciphered with an appropriate program. This mark can also consist of an appended serial number. Thus, each image is stamped and dated by the author so that she may trace the source of non-authorized copies of the image through a file containing both these serial numbers and identities of the users with licenses for the stamped pictures.

In some cases, a far more visible watermark can be useful. With this technique, a "tattoo" is clearly placed on the representation of the work in a manner rather similar to the printing of "SPECIMEN" on fake banknotes or other official documents. This practice, also called "fingerprinting," is widely used by photo agencies, who place their name or logo on a copy of a photo for promotional purposes, and then deliver the picture without the marking once payment has been made. In this case watermarking plays a protective role against duplication because this clearly visible mark decreases the value of what is freely accessible on the

15. These bits are useless in the sense that images and sounds contain a large number of bits, the suppression or modification of which would have no perceptible consequence for the viewer or listener. For instance, in the case of an audio recording, the line of digital code that makes up the marking is inserted in the bits with frequencies inaudible for the human ear.

networks.[16] The watermark can be either fragile or strong. In the first case, any modification or manipulation of the work modifies the watermark, and evidence of the alteration of the work will be found in the alteration of the mark. Strong watermarking does not provide such evidence; it only attaches indelible information to the work.

Digital signatures and encryption are other affixing techniques. A hyperlink or an in-line link can also make a sign or seal appear in relation to the work and refer the viewer to another website where more information can be found.

II. THE LEGAL PROTECTION OF COPYRIGHT MANAGEMENT INFORMATION

A. COPYRIGHT MANAGEMENT INFORMATION IN THE WIPO TREATIES

As digital identification systems and other technologies that enable the marking and protection of works have started to develop, rightholders have feared that these technological tools might themselves be cracked by other technologies or machines, or that they might be easily modified or removed. A concern about modification or removal was expressed in the WIPO Treaties of 1996, which instituted a double protection for technical measures. On one hand, the treaties provide protection for "effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restricts acts, in respect with their works, which are not authorized by the authors concerned or permitted by law."[17] On the other hand, they provide protection for the "Rights Management Information." In the latter case, Article 12(1) of the Copyright Treaty provides that:

> Contracting parties shall provide adequate and effective legal remedies against any person knowingly performing any of the following acts knowing, or with respect to civil remedies having reasonable grounds to know, that it will induce, enable, facilitate or conceal an infringement of any right covered by this Treaty or the Berne Convention:
>
> (i) to remove or alter any electronic rights management information without authority;
>
> (ii) to distribute, import for distribution, broadcast or communicate to the public, without authority, works or copies of works knowing that electronic rights management information has been removed or altered without authority.[18]

16. The Vatican Library uses such a technique developed by IBM so that the reproduction of the precious manuscripts of the Vatican can be browsed on the internet. But the barring of the image by the Vatican seal does prohibit you from reproducing or printing the image. *See* http://www.research.ibm.com/journal/rd/402/mintzer.html.

17. WCT, *supra* note 2, art. 11. Much has been written on the anti-circumvention provisions. For a comparison of these provisions in Europe, United States, Australia and Japan, *see* Séverine Dusollier & Alain Strowel, *La protection légale des systèmes techniques: Analyse de la directive 2001/29 sur le droit d'auteur dans une perspective comparatiste*, PROPRIÉTÉS INTELLECTUELLES, 2001, n°1, 10; Jacques de Werra, *The Legal System of Technological Protection Measures Under the WIPO Treaties, the DMCA, the European Union Directives and Other National Laws (Japan, Australia)*, 189 R.I.D.A. 67 (2001).

CMI is defined in Article 12 of the WIPO Treaties as:

> [I]nformation which identifies the work, the author of the work, the owner of any right in the work, or information about the terms and conditions of use of the work, and any numbers or codes that represent such information, when any of these items of information is attached to a copy of a work or appears in connection with the communication of a work to the public.[19]

The Agreed Statement concerning the WIPO Copyright Treaty further states that the provision does not create an obligation to embed such information in the works,[20] nor does it impose formalities that would impede the enjoyment of rights. To do so would be contrary to the longstanding principle of not requiring formalities to preserve copyright protection.

B. THE COPYRIGHT MANAGEMENT INFORMATION IN THE EUROPEAN DIRECTIVE

1. Scope of the Protection

Article 7 of the Directive states:

> Member States shall provide for adequate legal protection against any person knowingly performing without authority any of the following acts:
>
> (a) the removal or alteration of any electronic rights-management information;
>
> (b) the distribution, importation for distribution, broadcasting, communication or making available to the public of works or other subject-matter protected under this Directive or under Chapter III of Directive 96/9/EC from which electronic rights-management information has been removed or altered without authority, if such person knows, or has reasonable grounds to know, that by so doing he is inducing,

18. WCT, *supra* note 2, art. 12(1). For a similar provision with respect to RMI that identifies performances and owner of related rights, *see* WIPO Performances and Phonograms Treaty, Dec. 20, 1996 art. 19, *available at* http://www.copyright.gov/wipo/treaty2.html.

19. WCT, *supra* note 2, art. 12.

20. Some scholars have construed the CMI provision of the WIPO Treaties as an obligation for the States to require the use of CMI. *See* David Nimmer, *A Tale of Two Treaties—Dateline: Geneva—December 1996*, 22 COLUM.-VLA J.L. & ARTS 1, 19 (1997). Nimmer repeats his interpretation in other articles, while denying the existence of such an obligation in a footnote of one article. *See* David Nimmer, *Aus Der Neuen Welt*, *supra* note 5, at 199. *See also* Italian Law L.248/2000 (requiring as a condition for criminal remedies in case of copyright infringement, that software and multimedia works be marked by a seal delivered by the collecting society SIAE). *See* Alessandro Salvatori, *Il diritto d'autore e Internet: alcune note*, CIBERSPAZIO E DIRITTO 99 (2001) (providing more information about this Italian seal). *See also* Emma Pike & Simona Lavagnini, *Italian SIEA Stickers: A Barrier To Trade*, 23(9) E.I.P.R. 433 (2001).

enabling, facilitating or concealing an infringement of any copyright or any rights related to copyright as provided by law, or of the sui generis right provided for in Chapter III of Directive 96/9/EC.[21]

RMI is defined as:

[A]ny information provided by rightholders which identifies the work or other subject-matter referred to in this Directive or covered by the sui generis right provided for in Chapter III of Directive 96/9/EC, the author or any other rightholder, or information about the terms and conditions of use of the work or other subject-matter, and any numbers or codes that represent such information.[22]

Any element identifying 1) the work, the performance or the database protected by a *sui generis* right, 2) the author or any right owner, or 3) the rights or conditions of use, is covered by the definition. Information about the object, subject, and content of the copyright protection is thus subject to the Directive's protection. The definition here is not limited to certain identified elements as in the DMCA, which specifically enumerates the categories of information considered as CMI.[23] Therefore, the European definition of RMI is more open.

The terms and conditions of use of the work include copyright notices attached to copies of the work, any notice informing the user about her rights, and authorizations for or restrictions on use.[24] The result is that electronic, mouse-click or click-wrap licenses, which have become an essential part of the distribution of some works on the internet, also comprise "terms and conditions of use." Consequently, tampering with, deleting, or modifying an electronic license would be a CMI infringement, as would the creation of a pirate edition or the distribution of copies of software whose proper license has been removed.

Any code or numbers representing the information are said to qualify for the CMI protection. This refers to numbering identifiers such as the ISBN, DOI or CIS systems. David Nimmer doubts that this "code and number" notion, also appearing in the DMCA, suffices to cover watermarks.[25] Some watermarking seals are not a direct identification of the work or of the right holder, nor do they always consist of a code or number. Very often, watermarks are only logos, signs, or, in a more abstract way, a mere alteration of the computer code representing the work. Reading the watermarks usually requires a dedicated software or computer application. In that case, the protection of the watermark by CMI provisions is certainly not straightforward. The European definition reveals only whether the

21. European Directive, *supra* note 4, art. 7

22. *Id.*

23. Those categories are the title of the work, its author, its copyright owner, including the information set forth on a notice of copyright, the name of a performer whose performance is fixed in a work other than an audiovisual work, the name of a writer, performer, or director who is credited in the audiovisual work, terms and conditions for use of the work, identifying numbers or symbols referring to such information or links to such information, and any other information that the Copyright Office might decide to include. *See* Melville B. Nimmer & David Nimmer, *supra* note 5, sec. 12.09[A].

24. For instance, a message or a logo restricting the usage rights of a software to an educational purpose.

25. David Nimmer, *Puzzles of the Digital Millennium Copyright Act*, *supra* note 5, at 463.

piece of information *identifies* the work, which could suggest that a direct means of identification is needed. The DMCA covers "any other identifying information" about the author, the work or the terms of use. In my opinion, a sound construction of the CMI definition should include any information that enables, directly or indirectly, and by reasonable means, the identification of the work, its copyright owner, or the terms of use.[26]

Nevertheless, some watermarks do not contain any identifying information. Such is the case where the watermark consists of data whose alteration will only serve to prove an alteration of the image. It is simply an evidentiary function. This might also be the case where the watermark embeds an imperceptible signal in the digital content intended to communicate information about the marked object. One example is the SDMI protection scheme developed for digital music where the signal has to be recognized by the SDMI-compliant player before it will play the music. [27] The wording "terms and conditions to use the work" could, however, be construed in such a way that it would cover signals whose purpose is to make the terms of use known to a machine and not to a human.[28] The implementation of the directive in the member states should remove any confusion.

Another flaw in the European definition is the lack of protection for hyperlinks to any relevant information. The DMCA refers to links to relevant information, which include "embedded pointers and hyperlinks."[29]

2. The Relation of the Information to the Work

Article 7, *in fine*, states that the protection shall apply when any of these items of information are 1) associated with a copy of a work or 2) appear in connection with the communication to the public of a work. This will be the case when the ISBN number is embedded or invisibly watermarked in the digital code of the work, when a copyright notice appears at the bottom of the image, or when the downloading of the work follows the display of the electronic license to be clicked through.

In *Kelly v. Arriba Soft*, the court held that no violation of the U.S. CMI provision had occurred because the plaintiff had not embedded the information in the images themselves.[30] Arriba Soft provided a search engine that was able to search images on the internet and display the results as "thumbnail" size images.

26. This construction could be confirmed by the French version of the directive that states that the information "*permet d'identifier*" (*enables to identify*) the work.

27. *See* The Secure Digital Music Initiative, *at* http://www.sdmi.org.

28. Bentley J. Olive, *Anti-Circumvention and Copyright Management Information: Analysis of New Chapter 12 of the Copyright Act*, 1 N.C. J.L. & TECH. 2 (2000) (applying the CMI provision to *Sega Enters., Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992), where the court found that the defendant was not guilty of a copyright violation for copying the security code that contained information about the status of the work).

29. Melville B. Nimmer & David Nimmer, *supra* note 5, §12A-112a .

30. Kelly v. Arriba Soft., 77 F. Supp. 2d 1116 (C.D. Cal. 1999). This case has been partially reversed on appeal in Kelly v. Arriba Soft. Corp., 280 F.3d 934 (9th Cir. 2002) as to the consideration of fair use related to the display of full images. CMI was not considered on appeal.

Kelly was a photographer who held copyright in some of the images that the crawler reproduced. He claimed that such a practice was an infringement of § 1202(b)(1) of the Copyright Act since the reproduction of the images in a reduced size did not include the author's name and other information that appeared on the original website where the images were found. The court held that including the CMI elsewhere on the plaintiff's website, and not directly in the images, was not sufficient to invoke the protection of § 1202(b)(1). Yet, the DMCA does not require a direct relationship between the works and the related information. Under § 1202, the information has to be "conveyed in connection with copies or phonorecords of a work or performances or displays of a work." Displaying the CMI on the web page where the work appears should have met the "in connection with" standard.[31]

This requirement could raise more difficulties where certain types of CMI are concerned. Watermarking is particularly vulnerable. Indeed, the idea behind protecting the RMI is to protect the informative data itself, not the technique used to embed the information in the work. This makes CMI protection very different from protection of technological measures where the protective technique itself is also protected. Circumventing the technological lock or protection scheme is unlawful, but circumventing of the marking technique is not. The only significant act is the removal or modification of the identifying information that the circumvention has enabled. The difference is subtle but not without consequences. One such consequence is that, contrary to the common opinion, watermarking will probably not be protected as such under the CMI provisions.

One recent example could help explain this unexpected outcome. At the end of 2000, the music industry launched a contest aimed at defeating its new protection system, the Secure Digital Music Initiative (SDMI). Any person who managed to bypass the different features comprising the SDMI would win a substantial amount of money. In less than two weeks, a Princeton University team led by an international expert in cryptography, Professor Felten, cracked 5 of the 6 protections.[32] After having transmitted the outcome of their research to the music industry, Professor Felten team's discarded the award, preferring to keep their intellectual property rights. A few months later, Professor Felten intended to present the flaws of the SDMI system, which he found during the SDMI challenge, at a well-known security and computer science conference. The music industry sent a letter threatening to sue both him and the organizers of the conference under the provisions of the DMCA. Professor Felten complied and withdrew his paper.[33] Eventually, with the financial support of the Electronic Frontier Foundation, he sought a declaratory judgment stating that he could not be liable under the Act

31. Jane C. Ginsburg, *Copyright Use and Excuse on the Internet*, 24 COLUM-VLA J.L. & ARTS 1, 19-20 (2000).

32. Simultaneously, the sixth protection was cracked by a Belgian student in cryptography. Actually four out of the six protection schemes were based on the watermarking technique.

33. More information about the SDMI challenge and the Professor Felten's case, is available at http://www.cs.princeton.edu/sip/sdmi/faq.html. *See also* Pamela Samuelson, *Anticircumvention Rules: Threat to Science*, 93 SCIENCE 2028, 2031 (2001).

either for submitting his paper to the conference or for any eventual publication of any research resulting from or relating to the SDMI challenge. His principle argument was that the threat of litigation under the DMCA put an undue restraint on his freedom of speech. The district court of New Jersey dismissed the case on November 28, 2001, for lack of any injury or controversy.[34]

It is difficult to predict what the music industry's grounds would have been in a suit against the scientist for publishing his findings or giving a speech at a conference. Section 1201 (protection of technological measures) and § 1202 (protection of CMI) would likely have been the foundation for any action, and many important questions would certainly have been raised.

One could only imagine what the success of a claim for § 1202 infringement would have been, and this Article will limit its examination of the matter to this question. In the SDMI challenge, the winning team did not delete or remove any piece of information attached to a copyrighted work. They only tried to defeat the protection scheme that affixes such information to digital music. To do so, they were provided with samples of music to which watermarks had been applied. Ultimately, however, what they defeated was the technique, and as a result, the SDMI mark was altered or removed from the samples. The question is whether defeating the technique for embedding the information in the works would be considered an infringement of CMI provisions either in the European Directive or under the DMCA. In some cases where watermarking is involved, requiring a connection between the information and the content might cause problems,[35] particularly where watermarking does not imprint any code, number or identifiable information in the work.

Watermarking would not be protected by article 6 of the copyright directive, which protects the technological measures, because this technique only embeds some piece of information in the digital content and does not protect the access control scheme.[36] In the European Directive, technological measures will be protected against circumvention activities that aim to prevent or restrict acts not authorized by the rightholder. Watermarking does not, by itself, restrict anything. It simply affixes the information to the works and provides evidence of alterations.[37] The odd conclusion would be that watermarking[38] is not itself protected by the European Directive, but the outcome of a marking technique when it includes identifying pieces of information is.

34. Felten v. RIAA, case no. 01 CV 2669, (D.N.J. Nov. 28, 2001), hearing transcript *available at* http://www.eff.org/Legal/cases/Felten_v_RIAA/#files. The court held that the threat resulting from the letter sent by the SDMI association at the time of the conference was eventually disavowed several times and that the music industry had confirmed that it will not sue Professor Felten for any publication.

35. David Nimmer (Melville B. Nimmer & David Nimmer, *supra* note 5) achieves the same conclusion by taking another path. He doubts that a watermark could be considered as a code or number representing the information identifying the author, the work or the terms for use.

36. This is not the case in the SDMI where the protection scheme not only includes identifying information in the work, but also serves as an access control mechanism.

37. Melville B. Nimmer & David Nimmer, *supra* note 5, §12A-118.

38. By watermarking, I refer to the technique of embedding the information in the work, not the outcome of this process which is also called watermark.

3. The Protection of the Digital Information

RMI has to be in a digital form to be protected under the Directive. That result is reached not from the definition, but from the list of prohibited activities, which states that the protection covers only the "electronic" RMI. This requirement stems from the WIPO Treaties. Thus, non-electronic information is not protected, and tearing off the title page or the copyright notice of a book, or broadcasting a movie but omitting the credits would not be infringements of article 7 of the European Directive. By contrast, the DMCA does not distinguish between electronic or non-electronic CMI. Such broad protections will certainly raise some difficulties when they are applied.[39]

4. Prohibited Activities

The Directive lays down a twofold protection for RMI. It prohibits 1) the removal or alteration of any electronic RMI, and 2) the distribution, importation for distribution, broadcasting, communication, or making available to the public works from which electronic rights-management information has been removed or altered without authority. Distributing, providing to the public, or trafficking in devices that enable or facilitate tampering with CMI are not prohibited, contrary to the provisions related to the technological measures of protection as provided in the article 6 of the EU Directive. One might regret that this text does not prevent manufacturing and distribution of technical devices, the main object of which would be to circumvent protections. Indeed, it is important that the technical systems that enable the affixing of information relative to the management of rights such as watermarking may not be undone by easily available counter-systems.

The fraudulent attachment of *false* information relative to rights management is not prohibited by the EU Directive either, but the DMCA includes a prohibition against false CMI.[40] Although authors can be harmed in this way, they will have to turn to other legal tools like moral rights infringement[41] or computer crime offenses (e.g., computer forgery or fraud).

The CMI provisions are infringed only when certain standards of intent and knowledge met. Three conditions must be satisfied:

(1) the person must *knowingly* perform the prohibited acts;

(2) the person has to do it *without authority;* and

39. The inclusion of non-electronic CMI in the DMCA could lead to some strange cases, as Nimmer has demonstrated. *See* David Nimmer, *Puzzles of the DMCA, supra* note 5, at 418. For instance, the question as to whether the protection of non-electronic in the DMCA covers shrinkwrap licenses affixed to software might be raised.

40. 17 U.S.C. § 1202 (a).

41. An infringement of the moral right of attribution may be found, but only if the false information refers to the author, who is the only object of the moral protection. False information about the work, the producer or the terms of use will not find protection under the moral right.

(3) the person must *know or have reasonable grounds to know,* that by so doing *he is inducing, enabling, facilitating or concealing an infringement of any copyright* or any rights related to copyright.

This knowledge requirement is an additional difference from what is found in the anti-circumvention provisions. Circumvention of technological measures of protection does not have to induce or facilitate a copyright infringement in order to be considered unlawful. This has been underlined in a recent U.S. decision,[42] and a similar outcome should result from the relevant provisions of the European directive.[43] Rather than a stand-alone provision, the legal protection of RMI is more like an aggravated form of copyright infringement.

This knowledge requirement may raise some complex issues, and as Jane Ginsburg has stressed, "illustrates the relative weakness of [the] protection of copyright management information."[44] *Kelly v. Arriba Soft* is certainly a first illustration.[45] In that case, the court did not find an infringement of the CMI provisions because there was no intent to remove the CMI and no knowledge that a copyright infringement would result.[46] The research engine did not intentionally remove the copyright information and therefore certainly did not have any reasonable basis for knowing that a copyright infringement could be facilitated. On the contrary, because the search engines displayed the images with a hyperlink to the original web site, the court found that the intent requirement could not be met. As a general matter, it would be difficult to prove that even though the CMI had been removed or altered, it was done with the intent to an eventual copyright infringement.

Nevertheless, this condition could also help moderate some excessive application of the protection. In the case of the SDMI challenge mentioned above, although Professor Felten tampered with CMI, he did not do so with the intention of inducing subsequent infringements. Consequently, if he had been sued for CMI infringement, he would certainly have been found not guilty.

III. THE STRANGE MARRIAGE BETWEEN COPYRIGHT MANAGEMENT INFORMATION AND MORAL RIGHTS

Information identifying 1) the work, 2) any other owner of a copyright, or 3) a related right in the work, (e.g., the producer, the performers, the broadcaster, as information referring to "terms and conditions of use") is to be considered "rights management information" under the European Directive. The DMCA covers

42. Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294, 322 (S.D.N.Y. 2000) (holding that the defendants were not sued for copyright infringement, but for infringement of anti-circumvention provisions to which fair use does not apply).

43. Séverine Dusollier, *Technological Measures and Exceptions in the European Directive of 2001: An Empty Promise,* INT'L REV. INDUS. PROP. & COPYRIGHT L. (forthcoming 2003).

44. Ginsburg, *supra* note 31, at 18.

45. 77 F. Supp. 2d 1116 (C.D. Cal. 1999). For a critique of this decision, *see* Ginsburg, *supra* note 31, at 18.

46. *Id.*

similar types of information even though its approach is contrary to the European provisions to enumerate an exhaustive list of information to be protected.[47] The CMI is thus more than the mere identification of the author; its function goes beyond simply conveying the moral right of attribution,[48] as we know it in most European countries, in the digital environment.

This leads some to argue that through the protection of CMI, copyright law grants a new right of authentication, a digital counterpart of the moral right,[49] or a right of attribution, akin to the continental moral right, in countries, such as the United States, where such a right did not heretofore exist. This Section will investigate both this so-called right of authentication, or right of attribution, and whether the provisions related to the CMI create or protect such a right. In conclusion, I will cast doubt on the emergence of this right and underline the risks it would have for the moral rights of authors.

In an early article written with Jon Baumgarten, Jane Ginsburg found evidence of the emergence of a new right of attribution or authentication in several provisions of the U.S. Copyright Act.[50] First, § 1002 (e), enacted by the Digital Audio recording Devices and Media Act, requests that any person who transmits information relating to the copyright status of the sound recording do so accurately. Second, § 115(c)(3)(G), requires that a digital phonorecord delivery licensed under the compulsory license that this section organizes must be accompanied by the information encoded in the sound recording. Beyond those two distinct provisions related to specific types of work, § 1202 of the Copyright Act covers any type of work and a whole range of information related thereto, and thus offers a better argument for Ginsburg's position: "Proposed Chapter XII thus seems to provide fairly comprehensive coverage of attribution rights, at least where the copyright owner elects to supply copyright management information." She names this right "*lex authenticus*" to "give this right a patina of prestige."[51]

47. *See* sources cited *supra* note 20.

48. The moral right generally has three prongs: 1) The right of attribution, which is the exclusive right that enables the author to claim the authorship of her creation and thus oblige third parties to communicate it under her name. This right entitles an author to require her name be mentioned in relation to her work or not to be mentioned (anonymous or pseudonymous works). The right of attribution is often referred to as the right of paternity, specially in France. I prefer to use "the right of attribution" or "the right of authorship" which are gender-neutral terms. 2) The right of integrity that entitles the author to oppose to any alteration of her work, or at least, under the minimal standard of moral rights under the Berne Convention, to any distortion of her work that prejudices her honor or reputation. 3) The right of divulgation that gives the right to the author to decide whether, when, and how her work should be made available to the public. That right is very close to the U.S. right of first publication.

49. Dietz, *supra* note 8, at 165 (wondering whether the new identification systems do not shift the debate from moral rights of the authors to a quasi-moral right of the producers); Ginsburg & Baumgarten, *supra* note 8; Ginsburg, *supra* note 8; Eric Schlachter, *The Intellectual Property Renaissance in Cyberspace: Why Copyright Law Could Be Unimportant on the Internet*, 12 BERKELEY TECH. L.J. 15, 32 (1997) (considers the protection of CMI as an: "important step toward the recognition of the right of attribution").

50. Ginsburg & Baumgarten, *supra* note 8, at 6.

51. *Id.* at 7. At the time of her writing the DMCA was not yet adopted so Jane Ginsburg developed her argument on the grounds of the then pending Bill.

Recently, Ginsburg has reiterated her point: "The DMCA may contain the seeds of a more general attribution right: with sufficient ingenuity and effort, these seeds might be made to germinate. The seeds may be found in the section 1202 provision on 'Copyright Management Information'."[52] Further on, she writes: "Inclusion of the author's name in protected copyright management information suggests that the copyright law finally affords authors of all works, not just 'works of visual art,' a right to recognition of their authorial status." But she has to conclude, as I will do here, that "unfortunately, as we shall see, the situation is a little more complicated."[53]

In my view, the complications result from the confusion of the right of attribution with the right of authentication. I will distinguish between the two "rights" in this Article. The right of attribution is the moral right, as recognized in France, Germany, and Belgium, that entitles the author to claim authorship in the work. The right of authentication would be the right to ensure that the digital document corresponds to the work created by the author and has not been falsely attributed or distorted since its creation; however, such a right does not exist in copyright thus far. I will demonstrate that the right of attribution is only one of the technical features of the CMI and that its recognition or preservation can be threatened by a market-driven development of CMI. In addition, I will show that, by contrast, the right of authentication, without being a right, promotes some economic interests that are foreign to the rationale of the moral rights.

The argument for the recognition of a right of attribution is based primarily on the CMI provisions. As with discussions about the anti-circumvention provisions, this tends to overlook the consequences of the technology's normative effect. The CMI or technological measures have normative value by themselves and by reinforcing that value, the law makes them even more coercive or normative. They constrain or put in place some practices whose effect should not be neglected. For that reason, I will first consider the right of attribution and the right of authentication as implemented digitally by the CMI before turning to a consideration of the reality of those rights in the legal protection of CMI.

A. IS THE RIGHT OF AUTHORSHIP OR ATTRIBUTION EFFECTIVELY IMPLEMENTED BY THE COPYRIGHT MANAGEMENT INFORMATION TECHNIQUES?

The new techniques increase the practical possibilities for having the author's identity inextricably bound to her works as they circulate. Due to the multiplication of copies of works in the Information Society, the concern for identifying contents and authors is critical. Through digital identification, the author's name may be appended to any digital copy of the work and thus, accompany any copy of it on- or off-line, or appear in a database to which an identification symbol will refer. The authors' and performers' right of authorship is consequently benefited by the development of the system enabling marking and

52. Ginsburg, *supra* note 8, at 11.

53. *Id.* at 12.

digital identification of works.

This right is generally thought to imply that the name of the author should appear on any reproduction or on any copy of the work. It may be termed the "right of signature."[54] This solution prevails in many civil law countries, particularly in France,[55] in the Netherlands,[56] and in Spain.[57] Some countries also recognize a certain right of authorship for artists-performers. This is the case in Belgium, which grants performers both the right to append their name and the right to prohibit an inexact attribution.[58] Yet this right of authorship is more limited than the moral right the authors enjoy because it does not permit the artist to use this right in a negative way (i.e., to request her performance not be communicated under her name.)

Although the development of watermarking and other techniques may confer a greater efficiency on the right of authorship, it is necessary to remember that some techniques do not allow the attachment of the name directly. The author's identification may appear in the digital code as a watermark on the digital representation of the work, or in a standardized digital identifier that refers to a database containing all the relevant data about the work and its author. An identifying logo, comprising a hyperlink to a database with more extensive information may also appear on the work or accompany any communication or reproduction of it. The database would contain more extensive information about the work, such as the identity and address of the author or rightholder, the date of creation of the work, and the conditions under which the work may be used. In each of these cases, the name of the author does not itself appear on the copy of the work, but can be deduced from a code number or database query.

Is the right of authorship being respected in this last case given that the author is identified only indirectly? The purpose of the moral right of authorship should be reasonably satisfied by linking to a database on the condition that the author can be identified without charge, delay, or risk of confusion. The techniques for linking to the database may themselves be subject to technical difficulties. The hyperlink or the digital code pointing to the database might be dead or erroneous. Thus, one must be careful when choosing identification techniques. Technologies that append the author's or performer's name to the representation of the work in such a way that it could not be dissociated from the work would always be preferable. This opinion is akin to Andre Lucas's, who states that, "in order that the right of authorship not be emptied of its substance, the name of the author must be associated with the work itself in the closest possible manner. To systematically

54. Bernard Vinçotte, *Report On The Moral Rights Of Photographers In Civil Law Countries*, THE MORAL RIGHT OF THE AUTHOR, 347 (ALAI 1993).

55. French law explicitly requires that the name of the author appear on each copy of the work. CPI, art. 132-11, al.3; ANDRE LUCAS & H.J. LUCAS, TRAITE DE LA PROPRIETE LITTERAIRE ET ARTISTIQUE, 326-327 (1994).

56. Dutch Law on Copyright, art.25(1), as modified by the law of July 3rd, 1989, *available at* http://clea.wipo.int.

57. Spanish Law on Copyright, art. 64, 1°.

58. Belgian Copyright Law, art. 34, al. 3 (June 30, 1994).

send it to a file accessible at the user's explicit demand would not be sound."[59] For example, if the author is to be identified by the work's digital envelope, the technology should ensure that once the conditions of access to the work have been satisfied and the envelope falls away, the author's name will remain associated with the work.

Watermarking and digital identification do not, however, aim solely at guaranteeing respect for the right of authorship over electronic networks. Beyond the identification of the digital product by its author, the content itself is identified, certified, and protected. Moreover, the identity of the producer often accompanies the author's name, and in some cases replaces it. Appending the producer's name or replacing the author's, which could become common practice in the Information Society, raises new questions about how to apply the presumption of ownership that appears in many countries' laws.

Such presumption results from article 15 of the Berne Convention, which provides that:

> [I]n order that the authors of a literary or artistic work protected by this Convention shall, in the absence of proof of the contrary, be regarded as such, and consequently be entitled to institute infringement proceedings in the countries of the Union, it shall be sufficient for his name to appear on the work in the usual manner.[60]

This provision concerns copyright notices (e.g., the © symbol followed by the author's name, or the signature, paraph, initials, logo or stamp normally used by the author. The existence of such a reference or symbol constitutes only one element of proof, and here it is a matter of identifying the rightholder, who does not necessarily have to be the original author, but can be a producer or another exploiter to whom the author assigned her rights.[61] As a result, when the name of the producer appears on the work, she does not have to prove her rights, and the burden of the proof is borne by the person disputing its validity. By way of this presumption, French and Belgian caselaw has granted authorship to legal entities in order to stop infringement.[62] One of the conditions of this caselaw is that the "genuine" author does not dispute the claim.[63] In digital identification matters, the mention of the producer's name is a frequent component of CMI. Does this mean that the producer could benefit from this presumption of authorship thanks to the attachment of a code or other digital process?

The WIPO has concluded that it should not. At the beginning of the discussions

59. André Lucas, DROIT D'AUTEUR ET NUMÉRIQUE 237 (1999) [author's translation].

60. Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886 (Paris Text 1971, as amended Oct. 2, 1979), 828 U.N.T.S. 221, *at* http://www.cerebalaw.com/berne.htm [hereinafter Berne Convention], art. 15. This presumption is found in much legislation.

61. *But see* ANDRÉ LUCAS & H.J. LUCAS, *supra* note 55, at 151.

62. Considering a legal person as the first "author" of a work strongly departs from principles of author's rights countries, such France and Belgium. *See* Jean Louis Goutal, *Presumption of ownership of the exploitation rights in favour of legal entities: The Court of Cassation Maintains its Case Law*, 175 REVUE INTERNATIONALE DU DROIT D'AUTEUR [R.I.D.A.] 65 (1998).

63. Cass 1e civ., Mar. 24, 1993, R.I.D.A., October 1993, 2000 (France); Cass. 1e. civ., Jul. 3, 1996, R.I.D.A., January 1997, 315 (France).

about the development of a digital identification system, the WIPO declared:

> No legal effect would be attached to the existence or non-existence of an identification number for a work or a phonogram (which means, among other things, that *no legal presumption* whatsoever would be attached to the numbering system; however, the data on basis of which the international identification numbers are attributed and the publication of these data may have a certain probative value).[64]

Thus, a digital identifier could not, by itself, create a presumption of authorship.

Even so, this conclusion must be qualified by a reference to the Berne Convention. One must consider whether a digital code can be considered equivalent to the "mention of the name" or a "symbol." The interpretation of these notions should be broad and teleological. This purpose of this presumption is to identify a rightholder, so that she may bring a claim for copyright infringement. The Berne Convention speaks of the identification of the name "in the usual manner." From this perspective, inasmuch as the digital identification systems could become, through sheer force of habit, the usual method for identifying the works, the digital codes could implement the presumption of ownership.

In many cases, the mention of the producer's identity instead of the author's either in the watermarking process, or in the digital identifier accompanying the work, should not give rise to the presumption. The digital identifier will often refer to a database in which the status of each intervening party can be clearly differentiated whether author, artist-performer, producer, or any other rightholder. This approach would compensate for the weakness of the analog copyright notices which could in practice only "support" the mention of one or two rightholders.

Moreover, most copyright laws specify that the person who will be presumed to be the author of the work must appear *as such* on the work. Because it must be possible to insert the number of bits required for the insertion of such a digital code into broader norms of technical standardization, the digital identification systems currently being developed are being negotiated in conjunction with the standardization organizations. Generally, because the space available in the code layer devised for digital content is very limited, only the name of the producer appears. Therefore, the mention of the producer's identification number in the digits reserved for this effect may be under no circumstance be confused with the identification of the author because the producer appears here as the producer, and not as the author. As a result, the Berne Convention mentions the indication of the author's name "in the usual manner." The scope of application of these presumptions should adapt to the future identification customs of the Information Society—whether by watermarking or other techniques. If the identification of the author co-exists with that of the producer (either within the database or within the code or identification mark) only the author should be able to benefit from the presumption.

64. WIPO, Advisory Meeting Relative to the Creation of a Facultative System of International Numbering for Certain Categories of Literary and Artistic Works and for Phonograms, January 10, 1994, Memorandum, *cited in* Frederic Pollaud-Dulian, *French Report on the Authenticity of the Authorship and the Work*, in ALAI STUDY DAYS 1996, *supra* note 8, at 206. Emphasis added.

On the other hand, some identification systems such as watermarking do not systematically refer to a database. The name of the producer of the work could then appear without the author's name. In this context, it is possible that the caselaw would yet find some foundation to allow the producers to act against infringers. This eventuality would only arise if the author was not identified or did not claim her authorship.

Nevertheless, there is a risk that certain technical systems for identification and marking that do not refer to the original author could impose a *de facto* ownership on the economic exploiters of the works. This possibility illustrates the extent to which technical systems of identification and authentication protect the exploiter's need for identification and security more than the author's moral right of authorship. This technical protection cannot lead to the establishment of a general practice of naming the producer, which would in fact supplant the author's moral right. Such a practice—which some would like to qualify as a moral right for producers[65]—perhaps looks like a moral right of authorship but is not, and should not be, recognized as a moral right in the copyright law. Similarly, the producer should only benefit from the presumption of copyright ownership within the very precise limits already established in caselaw for the analog environment.

Most probably, the right of the author and the economic exploiter protected by the watermarking technique lies halfway between the right of authorship and a quasi-right of attribution of the work that would go beyond the sphere of moral rights. Nevertheless, one must not see digital identification by watermarking as a means of supplanting the author's right of authorship, which must remain whole and be exercised without prejudice.

B. DOES A RIGHT OF AUTHENTICITY EMERGE FROM THE COPYRIGHT MANAGEMENT INFORMATION TECHNIQUES?

One of the acknowledged objectives of watermarking is to certify the authenticity of works by identifying both the author and source and preventing the possibility of modifying the works. Doing this relies on the use of digital signatures to identify the work, as noted by the Clinton Administration's White Paper, which stated:

> Mathematical algorithms can also be used to create digital 'signatures' that in effect place a seal on a digitally represented work. Generating a digital signature is referred to as 'signing' the work. The digital signature serves as a means for authenticating the work, both as to the identity of the information that authenticated or signed it and as to the contents of the file that encodes the information that constitutes the work. Thus by using digital signature, one will be able to identify from whom a particular file originated as well as verify that the contents of that file have not been altered from the contents as originally distributed.[66]

65. *See* Jon Baumgarten's discussion in Ginsburg & Baumgarten, *supra* note 8, at 4.

66. Working Group on Intellectual Property Rights, U.S. DEP'T OF COMMERCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE 187 (1995).

This guarantee of authenticity, although it may be important in regard to exploitation, is not directly involved in the exercise of the author's rights, but rather, operates indirectly through the application of the right of integrity. The development of the internet, however, has raised a discussion about authentication broader than that of copyright, but which is also associated with the exercise of the authors' moral rights. In that sense, the Follow-up of the European Green Paper indicated that: "As a guarantee of origin and authenticity, the moral right also serves the consumer's interests, for whom it is already often difficult, in the traditional environment, to check whether they indeed received the requested product (and not a different product, or even a hacked product)."[67]

Of course, the debate about the authentication of the work involves the author's interests, the protection of the exploiters' commercial interests, and the trust of the users. Laws related to art forgery address the concern about authenticity[68] and purport to prevent the proliferation of falsely attributed paintings, which would harm the artist's influence and reputation and would have a negative impact on a country's art market. By itself this concern has nothing to do with copyright even though it relates to the distribution and exploitation of copyrighted cultural products.

Just like other products, cultural goods and products need to be promoted and offered to the public as goods that can easily be identified with an author or the artist-performer (for we know that for some works, it is the author or the performer who "sells" the work) and as documents originating from a determined source or certified "original" (for example, this guarantee could be important for press photographs.) In the context of the Information Society this concern is reinforced by the disappearance of physical media, the ease of manipulation, and the abundance of digital content that make the authenticity of works even more uncertain. One should see this as a concern for economic interests which, although they should probably be protected, cannot be considered as attributes of the author's moral right.

These economic interests in guaranteeing a work's authenticity and of certifying it, constitute the body of the protection provided by technical systems like watermarking. And the American White Paper reflects this by considering the need for authenticity above all as an economic question. Here, however, we are not dealing with the application of a right by technology—although it is strange to think that the general use of these new certification methods could consecrate a new prerogative to be enjoyed by authors and exploiters of the works in fact, perhaps with more effectiveness than if it were consecrated by law.

This so-called "right" of authentication should thus be understood to exist halfway between the interests of identification and integrity of digital content and those of the work's exploiters.[69] That is not the same thing as an actual right of

67. Communication of the Commission, Follow-up of the Green Paper, The Copyright and Related Rights in the Information Society, COM(96) 568 final, 27 (1996).

68. Denise Gaudel, *Author's Right and Art Forgery*, 151 R.I.D.A. 103 (1992).

69. Jon Baumgarten confirms this in the paper in which he, with Jane Ginsburg, argues for a right of authenticity:

> That differs a little from the traditional right, not merely in who owns it, but in its purpose. The traditional author's moral right is directed at the author's individual sense of honor and reputation . . . . But the *droit d'authenticité*, or the *lex authenticus*, or whatever we end up calling it, is really directed not so much at the interest of the author—or, indeed, of the publisher—as at the interest of the public in receiving truthful, authenticated, valid, and accurate scientific, technical, medical, historical, or what have you, information.

He then concludes (by a strong interest-driven logic) that the owner of such a right should necessarily be the publisher. Such a conclusion makes the assertion of this right of authentication under the umbrella of moral rights at least dubious. *See* Ginsburg & Baumgarten, *supra* note 8, at 4.

70. Ginsburg, *supra* note 8, at 13.

authentication.

C. DO THE RIGHTS OF AUTHENTICATION AND ATTRIBUTION RESULT FROM THE PROVISIONS ON COPYRIGHT MANAGEMENT INFORMATION?

CMI is now protected under most copyright regimes. As we have seen, removal or alteration of CMI is prohibited. Since the CMI might include the name of the author, Jane Ginsburg and others see a recognition of a right of the author to be named due to the prohibition of its removal.

Yet, making it an offense to delete or alter some information affixed to a copy of a work is not the same as a requirement that the information must be affixed in the first place. Neither § 1202 of the U.S. Copyright Act nor article 7 of the European Copyright Directive require attachment of the information to copies of the works. The legal protection of the author's name, as included in the CMI, results from the protection of a practice of identification that might (or might not) develop in the digital age. Should the right of the author become directly associated with the digital distribution of her work, we may conclude that the moral right of authorship is indirectly protected via the prohibition of the removal and distribution of copies from which her name has been removed. But as we have seen, the practice of digital identification focuses more on the economic interests of the producer and other economic exploiters of the work (i.e., interests in authenticating the content and tracing it to its legitimate licensing source) than on the personality right of the author. Therefore, to use Ginsburg's words, moral rights have certainly not "come of (digital) age," either in practice, or in law.

Ginsburg herself sees the flaws in the recognition of a moral right by the CMI provisions. She stresses that because "section 1202 concerns only copyright management information whose removal or alteration facilitates or conceals copyright infringement,"[70] the attribution "right" so created is not a right whose enforcement is autonomous—as a complete and self-supporting moral right normally is—but is rather, dependent on the economic rights infringement that will follow from the omission of the author's name. Ginsburg adds that "removal or alteration of copyright management information identifying the author of the work would violate the WIPO norm, but since it is not copyright infringement even willfully to miscredit the author, there would be no violation of section 1202 unless

it could be shown that miscrediting authorship induces infringement."[71] That would make of the right of attribution an ill-defined, and at best limited, right for the author.

IV. CONCLUSION

One article on the DMCA by David Nimmer is titled, "Puzzles of the Digital Millennium Copyright Act."[72] At first sight, I thought that he was referring to the well-known anti-circumvention provisions of this 1998 amendment to the U.S. Copyright Act. One could certainly qualify the intricate and controversial protection of technological measures as a puzzle, a conundrum, or an enigma. Yet, the article purports to lift the veil on another puzzle of the DMCA, that of CMI provisions, which tend to be easily overlooked and considered unproblematic. The recent adoption of the European Directive on copyright and related rights in the Information Society, and the provisions on RMI it contains, made me return to Nimmer's article. After some thought, I agreed with him: CMI is indeed an odd object in copyright law and its legal protection is full of puzzles. Those puzzles are the same in the European Directive and in the Copyright Act of the United States. Although watermarking is the main technique intended to be protected under the CMI provisions, it does not seem to be covered; the elements of knowledge and to infringe upon a copyright severely decreases the efficiency of the protection.

Furthermore, one of the main motivations behind the CMI provisions, at least in the political declarations accompanying the directive (i.e., the protection and enhancement of the moral right in the digital age) seems to be a promise that has not been kept. Since the beginning of their development, watermarking, and digital identifiers have been promoted as tools for protecting the author's moral rights. We have, however, seen that on one hand the identification technologies permit or even induce an identification of the producers and other economic exploiters of the work, and on the other hand, that watermarking guarantees the authenticity of the work, which is more in the nature of an economic interest than a safeguard of the moral interests in the integrity of the copyrighted work.

Adolf Dietz has already questioned whether watermarking and other technical systems of identification would shift the debate over protection of authors' moral rights towards the establishment and the guarantee of an almost moral right for the producers and other economic exploiters of the works.[73] I do not think so. First, though CMI protects the legitimate interests of the producers, it does not create a new right in the copyright arsenal. Second, the guarantee of these interests may under no circumstances be associated with moral rights, whose existence and exercise are inextricably bound to the author and her personality. This would imply that the discussions relative to CMI are not a substitute for a real debate over interests both moral and economic of the author. Technology should not develop to

71. *Id.*

72. David Nimmer, *Puzzles of the Digital Millennium Copyright Act*, *supra* note 5.

73. Dietz, *supra* note 49, at 168.

the detriment of the authors' moral rights. Under these conditions, digital identification and watermarking could provide both a solution and a new effectiveness to the rights of authorship and integrity, and the satisfaction of more economic interests linked to the exploitation and distribution of the works.

As moral rights are an exclusive matter for authors, I should leave the floor to one of them. When his film *Breathless* was broadcast in France, Jean-Luc Godard said:

> I would prefer that this awful logo of M6 [a French TV channel] not appear either on the top of the image or anywhere else. As I read the Official Journal, it is prohibited by the copyright law. Nevertheless, I understand the concern of M6 not to be forgotten by its audience. So I propose to put inserts, which would be easy to make in video, with the words "aime six". That would add a touch of mystery to that movie which is not a remake of a US B movie, as I thought at first, but a new adaptation of Alice in Wonderland.[74]

With his mischievous remark, Godard stresses the power of the author to control any identification of his work or any information transmitted or displayed with it. The filmmaker did not want the logo of the TV channel to appear in the broadcast of *Breathless*, but allowed it to be replaced with similar information that was under his exclusive control. The copyright law should ensure that authors, and not producers or distributors, have the same type of control in the matter of CMI.

74. Letter from Jean-Luc Godard to a French authors' rights society, *in* A. Bergala (ed.), Jean-Luc Godard par Jean-Luc Godard, Vol. 2 1984-1998, Cahiers du Cinéma, 15 (1998) (author's translation). Godard plays with the words "aime six" (love six) that sound like the logo of the TV channel M6.